

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1-14 and 19-30 are pending. Claims 1-14 and 19-30 stand rejected.

Claims 1, 19, 21, 25, and 27 have been amended. No claims have been cancelled. No claims have been added. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendments do not add new matter.

Rejections Under 35 U.S.C. § 103(a)

Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,269,336 of Ladd et al. (“Ladd”) in view of U.S. Patent No. 6,662,163 of Albayrak et al. (“Albayrak”) in further view of U.S. Patent No. 6,615,171 of Kanevsky et al. (“Kanevsky”). Claims 19-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,662,163 of Albayrak et al. (“Albayrak”) in view of U.S. Patent No. 6,615,171 of Kanevsky et al. (“Kanevsky”).

Applicants respectfully disagree. Applicants have amended claim 1 to particularly point out that a distributed speech recognition (“DSR”) gateway module is for performing distributed speech recognition based on speech features received from the DSR client via a network, for receiving a markup document supported by a distributed speech recognition (“DSR markup document”, interpreting tag elements of the DSR markup document, and dynamically generating grammar from the DSR markup document, and controlling display content navigation of the DSR markup document by distributed speech recognition.

Amended claim 1 reads as follows.

A system comprising:

DSR client module for capturing speech, extracting speech features, sending the speech features, interpreting markup content and displaying content;

DSR gateway module coupled for communication with the DSR client module, the DSR gateway module for receiving the speech features and a DSR markup document, interpreting tag elements of the DSR markup document, and dynamically generating grammar from the DSR markup document, and controlling display content navigation of the DSR markup document by distributed speech recognition, wherein the DSR client module sends speech features to the DSR gateway module via a network;

DSR document server coupled for communication with the DSR gateway module, the DSR document server for processing requests from the DSR gateway module and for producing the markup document in response.

(Amended claim 1) (emphasis added)

Ladd, in contrast, discloses a communication node that interprets voice requests from a client (Ladd, col. 6, line 65 to col. 8, line 67). The Examiner asserted that Ladd, in contrast, discloses a voice recognition module located at the communication node (“server”) and fails to disclose, teach, or suggest a DSR gateway module that performs distributed voice recognition based on speech features sent by a DSR client over the network, as recited in amended claim 1.

Accordingly, Ladd fails to disclose, teach, or suggest a DSR gateway module for receiving a DSR markup document, i.e. the markup document that supports DSR, interpreting tag elements of the DSR markup document, dynamically generating grammar from the DSR markup document, and controlling display content navigation of the DSR markup document by distributed speech recognition, as recited in amended claim 1.

Albayrak discloses, in contrast, a voice browser on the client device that converts voice messages from a client into text messages. The Examiner asserted that Albayrak discloses a voice interpretation merely at a client side. More specifically, Albayrak discloses

Each mobile client includes a microphone, a speaker or headset, a processor and a voice browser. The voice browser interprets voice pages received from the server. Upon receiving a particular voice page from the server, the voice browser outputs via the speaker voice prompts specified by the voice page. A speech recognition engine used by the voice browser converts voice responses from a user into a text response. The voice browser then performs an action based on the text response. The action taken may be to request a new voice page from the server, or to continue to interpret the current voice page.

(Albayrak, col. 3, lines 5-16) (emphasis added)

In contrast, Albayrak discloses a client device, which performs complete voice recognition, and not a distributed voice recognition, as claimed by the applicants. As such, Albayrak, similarly to Ladd, fails to disclose, teach, or suggest a DSR gateway module that performs distributed voice recognition based on speech features sent by a DSR client, as recited in amended claim 1. Accordingly, Albayrak, similarly to Ladd, fails to disclose, teach, or suggest a DSR gateway module for receiving a DSR markup document, i.e. the markup document that supports DSR, interpreting tag elements of the DSR markup document, dynamically generating grammar from the DSR markup document, and controlling display content navigation of the DSR markup document by distributed speech recognition, as recited in amended claim 1

Kanevsky discloses a portable user's device and a server that use a distributed speech recognition mechanism to facilitate user identification at a server. More specifically, Kanevsky discloses that

The ASSR server in the system includes stored models of enrollment or authentication data. The models are built during subscriber or client enrollment. The ASSR server also stores a set of vocabularies and other models, such as language models and Hidden Markov Models (HMM), for speech recognition. The ASSR server processes the signals received from the portable SSP device and compares the processed signals with the stored models.

(Kanevsky, col. 3, lines 6-13) (emphasis added)

Kanevsky, in contrast, merely discloses a ASSR server for receiving and storing enrollment, authentication data, vocabularies, and language models, and comparing stored data to the data received from a user, and not a DSR gateway module for receiving a DSR markup document, interpreting tag elements of the DSR markup document, dynamically generating grammar from the DSR markup document, and controlling display content navigation of the DSR markup document by distributed speech recognition, as recited in amended claim 1.

Thus, neither Ladd, Albayrak, nor Kanevsky discloses, teaches, or suggests such limitation of amended claim 1.

As discussed above, it is respectfully submitted that Ladd does not teach or suggest a combination with Albayrak and Kanevsky, Albayrak does not teach or suggest a combination with Ladd and Kanevsky and that Kanevsky does not teach or suggest a combination with Ladd and Albayrak. It would be impermissible hindsight, based on applicants' own disclosure, to combine Ladd, Albayrak, and Kanevsky. Ladd discloses a voice recognition unit at a server side ("communication node") to interpret a user's voice request. In contrast, Albayrak discloses a voice recognition unit at a client device to communicate with a remote computer system. Kanevsky, in contrast to Ladd and Albayrak, discloses a distributed voice recognition mechanism between a user device and a server to facilitate accurate recognition of a user by a server.

Furthermore, even if Ladd, Albayrak, and Kanevsky were combined, such a combination would lack the limitation of amended claim 1 of a distributed speech recognition ("DSR") gateway module for receiving a DSR markup document, i.e. a document, which supports distributed speech recognition, interpreting tag elements of the DSR markup document, dynamically generating grammar from the DSR markup document, and controlling display content navigation of the DSR markup document by distributed speech recognition.

Therefore, applicants respectfully submit that amended claim 1 is not obvious under 35 U.S.C. §103(a) over Ladd, in view of Albayrak, and further in view of Kanevsky.

Given that claims 2-14 depend, directly or indirectly, from amended independent claim 1, and add additional limitations, applicants respectfully submit that claims 2-14 are likewise not obvious under § 103 (a) over Ladd, in view of Albayrak, and further in view of Kanevsky.

With respect to claim 19, applicants have amended claim 19 to particularly point out that DSR client receives an event from a DSR gateway with identification information for a component if a distributed speech recognition result performed by the DSR gateway indicates that the DSR client needs to display the component of a DSRML document.

As discussed above, Albayrak does not disclose, teach, or suggest distributed speech recognition. Kanevsky, as discussed above, discloses a portable device, which converts sound, silence and noise into feature vector data for distributed speech recognition at a server. More specifically, Kanevsky discloses

The illustrative embodiment of the present invention includes a portable SSP device, comprising a microphone for converting sound including speech, silence and background noise signals to analog signals; an analog to digital converter for converting the analog signals to digital signals; a digital signal processor (DSP) for generating from the digital signals feature vector data representing the speech and characterization data representing the silence and background noise signals; a coupler for coupling to an acoustic or data communication device for communicating the signals representing the feature vector data over a communication channel for recognition of the speech by an ASSR server at a remote location.

(Kanevsky, col. 3, lines 6-14) (emphasis added)

In particular, Kanevsky discloses

With his PC 450, user establishes connection with the ASSR server 200 via communication link L (through, e.g., SSL V2) to request his smartcard PIN change. Dialogue boxes or voice prompts are presented to the user to enter his user ID, name, smartcard serial number, etc. ASSR server 200 accesses the stored certificate and the user profile based on the entered information. ASSR server 200 then prompts the user to speak to the PC speaker with preset voice messages for authentication. The accessed user profile and voice segments from the database is compared with the input messages from the user for authentication. The user may be given a few chances to make correct inputs to the verification program. If the verification is correct and the user is a current valid user, the ASSR server 200 uses the smartcard certificates and public key to encrypt the PIN reset

command and sends it to the user PC and the associated smartcard reader. The user smartcard then uses its unique private key to decrypt the RESET PIN command.

(Kanevsky, col. 8, lines 39-46) (emphasis added)

Thus, Kanevsky merely discloses a DSR client receiving and converting sound, silence, and noise to feature vector data and receiving dialog or voice prompts and encrypted PIN or password commands from a server (Figure 4) and fails to disclose, teach, or suggest a DSR client receiving an event from the DSR gateway with identification information for a component of a DSRML document, if distribution speech results performed by the DSR gateway indicates that the DSR client needs to display the component of the DSRML document, as recited in amended claim 19.

Thus, neither Albayrak, nor Kanevsky discloses, teaches, or suggests such limitation of amended claim 19.

Furthermore, even if Albayrak and Kanevsky were combined, such a combination would lack the limitation of amended claim 19 of a DSR client receiving via the network a first event from the DSR gateway with identification information for a first component if a distributed speech recognition result performed by the DSR gateway indicates that the DSR client is to display the first component of a current DSR document.

Therefore, applicants respectfully submit that amended claim 19 is not obvious under 35 U.S.C. §103(a) over Albayrak, in view of Kanevsky.

Given that claim 20 depends directly from amended independent claim 19, and add additional limitations, applicants respectfully submit that claim 20 is likewise not obvious under § 103 (a) over Albayrak, in view of Kanevsky.

Because independent claims 21, 25, and 27 contain at least one of the limitations discussed above with respect to claims 1 and 19, Applicant respectfully submits that claims 21, 25, and 27 are likewise not obvious under 35 U.S.C. § 103 (a) over Albayrak, in view of Kanevsky.

Given that claims 22-24, 26, 28-30 depend, directly or indirectly, from amended independent claims 21, 25, and 27 respectively, and add additional limitations, applicants respectfully submit that claims 22-24, 26, 28-30 are likewise not obvious under § 103 (a) over Albayrak, in view of Kanevsky.

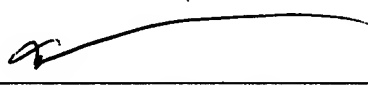
It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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